Investigating the value and influence of informal strategic advice for environmental assessment in Western Australia

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Declaration

I declare that this thesis is my own account of my research and has not previously been submitted anywhere else. Any contributions made to this research by others are appropriately acknowledged.

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Lara Martin, October 2013

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Abstract

Formal processes for environmental assessment (EA) have been established throughout the world. In Western Australia (WA) informal strategic advice, which sits outside of the formal or legally binding project based environmental impact assessment process required for significant development proposals, has been in use for nearly two decades. Such advice, prepared by the Environmental Protection Authority under s16 of the *Environmental Protection Act* 1986, is an early form of EA intended to inform the pre-project stages of development. No previous studies have investigated this informal strategic advice in WA.

Through literature review, interviews with EA practitioners and two case studies, this research investigated the value and influence of informal non-binding strategic advice for EA in WA. While the international literature gives a limited account of the potential value and influence of informal approaches to EA, the main results were obtained from interviews with 29 practitioners who have been involved in the formulation or use of this advice in WA. The majority of those interviewed believe strategic advice is of value with respect to providing upfront early advice, greater certainty and clarity on what is acceptable (including direction and guidance to both proponents and regulatory authorities).

However a number of limitations in its use were also identified including the cost, time and resources it requires in providing advice, its currency and shelf life, uptake and issues with implementation of recommendations which are not enforceable. Provision of clear objectives, as well as improvements in the timing and relevance of advice and making more use of advice (as a guide for developers) were identified as positive ways forward.

The case studies revealed similar results with the more focused advice for a specific project or environmental issue in the early stages being held to be more favourable. Overall the results recognise the value of informal strategic advice as a means to complement formal EA and as a useful tool to assist with making better informed decisions earlier in the assessment process.

Abbreviations/Commonly Used Terms

Abbreviation	Definition
EA	Environmental Assessment
EIA	Environmental Impact Assessment
EP Act	*Environmental Protection Act 1986*
EPA	Environmental Protection Authority
Formal	based on a legal framework; 'following the rules' (Cherp et al., 2007)
Informal	not formal
OEPA	Office of the Environmental Protection Authority
PPP	Policy, plan and program
SEA	Strategic Environmental Assessment
Section 16(e) *(EP Act 1986)*	16. Functions of Authority – (e) to advise the Minister on environmental matters generally and on any matter which he may refer to it for advice, including the environmental protection aspects of any proposal or scheme, and on the evaluation of information relating thereto
Value	Worth, utility, importance; relative worth or importance (Krebs, 1984)
WA	Western Australia

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1. Introduction

Environmental assessment is recognised worldwide as a key tool employed by governments to plan and manage the environmental effects of new development proposals. This thesis investigates the value and influence of informal strategic advice for environmental assessment practice as perceived by Western Australian practitioners.

Before presenting the specific aims of the research it is first necessary to clarify the difference between formal and informal types of environmental assessment and explain what is understood by being 'strategic' in the context of environmental assessment.

1.1 Formal and informal environmental assessment and strategic advice

Environmental Impact Assessment (EIA) emerged as a formal mechanism for environmental management over forty years ago in response to public pressure and concern for the environment in relation to development, and is now regulated in all but two countries in the world (Morgan, 2012; Bond and Pope, 2012). Its aim is to improve environmental protection and achieve more sustainable outcomes through informing or influencing decisions (Cashmore et al., 2004). This has since evolved to other forms of environmental assessment, such as strategic environmental assessment (SEA) which allows for earlier consideration in the decision making process, going beyond project level to policies, plans and programs (PPPs) (Marsden and Ashe, 2006; Fischer and Onyango, 2012). However, as Pope et al. (2013) suggest non-regulated or informal forms of impact assessment, which can also contribute to earlier planning and consideration of alternatives (leading to better outcomes), tend to be overlooked.

According to Gunningham (2009) regulation is considered the key motivator for improved environmental performance where information based strategies provide a means to compliment legal mechanisms. This includes informal and strategic processes

such as the use of guidelines, bulletins, technical reports and 'strategic' advice that are voluntary and non-binding (EPA, 2013b). Unlike formal processes which require 'following the rules' (Cherp et al., 2007), informal or non–binding processes, such as strategic advice for environmental assessment (EA), is where no binding conditions are set within the advice so there is no mechanism by which it can be imposed 'other than through subsequent project-level assessments' (Malcolm, 2002, p76).

In Western Australia (WA), the *Environmental Protection Act* 1986 (EP Act) establishes formal processes for EA which lead to legally binding conditions of approval being served on proponents of development (Morrison-Saunders and Bailey, 2000; Thomas and Elliott, 2009) with an average of 30-40 such assessments conducted each year (EPA, 2007b, 2008; OEPA, 2010c, 2011, 2013). As outlined by Malcolm (2002), Waldeck et al. (2003) and EPA (2009) informal processes are also available, including the use of non-binding strategic advice for EA. Advisory provisions of the Environmental Protection Authority (EPA) allow for an informal form of SEA under section 16 (e) of EP Act (Malcolm, 2002), termed 'strategic advice' by the EPA (2013d).

In the words of the EPA (2010b, p18) strategic advice is about providing early advice to 'influence the achievement of better environmental outcomes'. Strategy involves plans or policies to achieve something, where SEA is the process which then 'leads to a strategy for action' (Marsden, 2002, p3). Noble (2000) and Marsden (2002) consider it a proactive approach where the broader context allows consideration for alternatives in the assessment of PPPs above individual project level. This earlier consideration of environmental concerns in the decision-making process can improve consistency and quality of subsequent assessment decisions and influence choice of alternative developments (Jiliberto, 2004b; Therivel, 2004; Tetlow and Hanusch, 2012), provide

upfront certainty and potentially avoid or streamline 'any subsequent project level assessments and approvals' (Stoeglehner et al., 2010, p410). Consequently, as Morgan (2012) suggests, there should be less emphasis on EA as a compliance driven process and more on decisions within organisations as an integral part of project design and development.

Whether formally or informally applied SEA is a useful tool for proactive EA (Marsden, 2002), where the provision of early (informal strategic) advice has the potential to reduce the need for project EIA later on, and improve environmental protection such as through greater certainty on acceptability of proposals early on and addressing cumulative impacts (Waldeck et al., 2003; Cherp, 2005; EPA, 2009; Gachechiladze-Bozhesku, 2012). Here the focus is on its informal application as strategic advice with respect to its perceived value and influence.

1.2 Project aims

The aim of this study was to examine Western Australian practitioner perspectives on the value and effectiveness of informal strategic advice (voluntary, non-binding) provided by the Environmental Protection Authority under section 16 (e) of the *Environmental Protection Act 1986* (EP Act).

It addressed two fundamental research questions:

- What is the value of informal strategic advice in environmental assessment in Western Australia?
- How does this informal strategic advice influence or affect the outcomes of subsequent development proposals in the views of practitioners?

The methodology employed to address the two research questions is explained in the next chapter. A review of international and western Australian literature follows to document current understanding of the efficacy of informal EA processes, including advantages of a strategic level focus. Chapter 4 presents the perspectives of practitioners interviewed for the research interwoven with further findings drawn from the international literature. Overall conclusions are presented in Chapter 5 which considers the two research questions independently and the overall utility of employing informal strategic advice within EA practices.

2. Research design and methods

The two research questions are inter-related and the same data collection methods applied for each: 1) literature review, 2) case study research; and 3) standardised interviews with practitioners who have been involved in the formulation or use of s16 strategic advice in Western Australia, to examine how well this advice translates into practice. The study was very streamlined and focused, but nevertheless generated a large data set, as is explained further on.

2.1 Literature review

An initial literature review provided background and context, identifying findings of previous known studies (Hay, 2012), in the context of the two research questions. Engaging with previously published material provides an opportunity to extend on current knowledge (Bloomberg and Volpe, 2008) on the effectiveness and value of informal environmental assessment advice. Literature review also informs discussion of the findings from interviews, and in the research design and selection of methods.

2.2 Case study research

Case studies provide context with real-life situations and complement other research methods (Flyvberg, 2011). Two illustrative examples were used to support the response to questions relating to the influence of advice on subsequent activities and to identify how well EPA strategic advice is utilised in subsequent plans and proposals. These are the Preston Industrial Park advice (EPA, 2008a) and Waste to Energy technology advice (EPA, 2013a).

2.3 Interview design

Interviewing professionals working in a given discipline provides valid answers to the research objective using insider knowledge (Marvasti, 2004; Alasuutari et al., 2008). For this research interviews were conducted with 29 Western Australian practitioners representing primarily Office of the EPA (OEPA) staff and Environmental Protection Authority (EPA) members, as well as proponents, consulting firms and/or decision making authorities involved in s16 (e) assessments. While an attempt was made to interview all groups who had been involved in the formulation or use of s16 (e) strategic advice, the sample size was not representative and was biased towards those providing the s16 (e) advice. This was largely due to the principle target group being policy makers and other regulators who were known to have a role with s16 (where it is difficult to know who proponents are or will be when it is not project specific advice); and the unavailability (within the study timeframe) of those proponents invited to participate in the study. While it is not a statistically representative sample (which according to Peterson (2008) needs to be a true random sample for interpreting data as representative) and therefore biased, it is adequate for insights into personal views to judge value and effectiveness of strategic advice.

Interviewees were selected opportunistically and through the use of a snowball sampling technique based on their involvement in this area (as per Hayes and Morrison-Saunders, 2007 and Hay, 2012), an attempt was made to include a variety of different roles to ensure a range of fields and types of projects were covered. Participation was voluntary and anonymity and confidentiality were preserved to allow honest responses (Simon, 2011).

A standardised questionnaire of 11 questions (Table 2.1) was used to conduct interviews where answers were audio recorded and then transcribed for analysis. Questions 1-5

provided demographic data used to gauge the level of experience and involvement in s16 (e) processes. Question 6-10 provided qualitative data, and open questions were used to gain interviewee perspectives (e.g. as per Creswell, 2003). Questions 6, 8 and 9 address the perceived value and effectiveness of advice; questions 7 and 9 consider the influence of advice on outcomes of subsequent proposals. Qualitative analysis techniques were used to analyse results, where analysis was based on the frequency of common responses (as per Waldeck et al., 2003) and supported by sample quotes using the respondents own words (as per Morrison-Saunders and Bailey, 2009).

The last question is a form of a 'snowballing' interview technique to identify other potential participants. Appendix 1 provides the standard interview questionnaire, invitation letter and consent form used.

Table 2.1 Interview questions on value of advice provided by the Environmental Protection Authority under section 16 (e) of the *Environmental Protection Act 1986.*

Demographic data questions:

1. How many years have you been working in the environmental assessment field in Western Australia: < 5 years 5-10 years 10-15 years >15 years
2. What best describes your role: Consultant Industry Proponent OEPA staff Other Govt. Agency Other (specify)
3. Which types of projects are you mostly associated with:
   Industry Planning Infrastructure Resource Management
4. Approximately how much of your working time do you spend directly on environmental assessment: Up to 25% 25-50% 50-75% 75-100%
5. How many section 16(e) submissions/proposals have you been involved with?

Qualitative data questions (open questions):

6. Do you consider the s16 (e) process to be valuable? If so what do you see as the best value that s16 (e) advice offers?
7. Can you provide an example of how s16e advice influenced subsequent activities by others? (i.e. how it has been used in practice)
8. What do you see as the main benefits of the EPA's s16e advice?
9. Are there specific components of the s16e process that have been ineffective or that could be improved? If so, how?
10. Do you have any other comments to make regarding informal processes for environmental assessment in Western Australia?
11. Is there anyone else that you know who is working in this field that may be interested in sharing their experiences with s16 advice?

2.4 Assumptions and limitations

A key assumption of this research design and methodology is that biasing the interviews to relevantly experienced people[1] involved in strategic advice, would generate the greatest understanding of s16 value and influence (e.g. because of their involvement in multiple projects or s16 advice). Consequently proponents, who may be a one-off project developer under potential influence of s16 advice, are largely absent from the sample. The research was also specifically designed to be qualitative with respect to the nature of the data collected; no attempt was made to generate quantitative results or have a representative sample size of practitioners that could be subjected to statistical testing. The challenge of this research lies in the difficulty of proving cause and effect in informal environmental assessment processes, where it is difficult to measure how the advice given is used and to determine its influence or effect on outcomes in the absence of other factors (Partidario and Fischer, 2004; Cherp, 2005). As Cashmore et al. (2009) highlights there are also issues with subjectivity in determining or evaluating effectiveness depending on differing views. However, as previously explained, interview and case-study based research enables valuable insights and perspectives on the overall research aim to be obtained.

[1] Where professionals in a given discipline have insider knowledge and thus provide valid answers (Marvasti, 2004; Alasuutari et al., 2008).

3. Published perspectives on informal environmental assessment

This chapter synthesises previously published perspectives regarding informal *advice, strategic advice, informal EA* or *informal SEA* and its value and effectiveness, where s16 (e) strategic advice as a form of informal SEA falls within this area. The literature review has been structured around the two research questions followed by explanation of specific provisions in WA.

3.1 Value of informal and strategic advice in environmental assessment

While a number of authors, such as Malcolm (2002), Partidario and Fisher (2004), Marsden and Ashe (2006), Stoeglehner et al. (2009) and Tetlow and Hanush (2012) provide reference within their text to 'informal processes in EA' there is no in-depth study into its value or effectiveness or the role informal advice might play in influencing proponents before they start the assessment process. Their focus tends to be on formal processes with only recommendations for further review of 'informal and 'non-traditional' SEA approaches' (e.g. Tetlow and Hanush, 2012, p22). So what value or benefit might this early informal advice then provide in EA, where as Cherp et al. (2007) points out informal processes and strategic initiatives can be difficult to measure and 'rules are not set' and can quickly change?

3.1.1 Value of informal advice

It has been suggested by EPA (2009), Bond and Pope (2012) and Pope et al. (2013) that non-regulated or informal forms of environmental assessment can contribute to earlier planning and consideration of alternatives often leading to better outcomes. More simply still, the mere existence of impact assessment requirements or expectations can change proponent behaviour (with the potential to eliminate downstream EIA) which supports Wathern's (1988, p6) view that 'the greatest contribution of EIA…may well be

in reducing adverse impacts before proposals come through to the authorization phase'. By raising issues in the early concept stages, such as the policy, plan or program level, there is an opportunity for deterring proponents from putting forward environmentally unsound projects in the first place (Ortolano and Shepperd, 1995; Pope et al., 2013).

Consideration of the value of informal advice relates to the perceived benefits and utility that it provides, where value can be defined as relative worth or importance (Krebs, 1984). Values of informal advice could include such things as timing and relevance of advice (Haq, 2004) or reliability and practicality in supporting decision makers (Jiliberto, 2004b), where values serve as guiding principles which influence behaviour of the people or social entities on the basis of costs/benefits to the group or individual (Gaspartos, 2010).

As Therivel (2004, p xv) argues, effective EA is about 'making the right comment at the right meeting to get the right person to consider something that they had not thought of before'. Where the timing of advice, as well as having the right information on hand, can be considered important in decision making to avoid the risk of being irrelevant (Haq, 2004). EA is part of a larger process to inform decisions which helps provide focus for decision makers (Haq, 2004; Therivel, 2004). According to Pölönen et al. (2011, p123) assessment processes contain 'a great deal of informal communication between the developer, the liaison authority and the public' that goes 'beyond what the EIA legislation requires'. This is where informal strategic advice provides a role in environmental assessment, and while this research only considers the s16 (e) process employed by the EPA of WA which is specifically framed as *strategic* informal advice (EPA, 2013d), learning from other research and accounts of other informal advice are included.

3.1.2 Informal SEA and strategic advice in practice

Within Australia, states such as South Australia (SA) undertake informal SEA, as explained by Dalal-Clayton (2005) regarding coastal planning of marina site selection, which Harvey (2002, p121) also outlines in a SA Marina Case Study from 1989 which had 'no legislative status', but had 'government endorsement'. While it 'was never formalised as a specific SEA study'[2], it was generally accepted as a marina strategy, and subsequently used for marina development that was 'consistent with the strategy' over the following 12 years (Harvey, 2002, p121-123). Similar informal SEAs also occur in Victoria for a more strategic and coordinated planning approach to marina development (Harvey, 2002). And Federal voluntary SEA processes are also in place, with the first completed SEA on urban growth in Melbourne completed in 2010, however these are relatively new and evaluation of effectiveness as yet to be undertaken (Stoeglehner et al., 2010).

Malcolm (2002), Dalal-Clayton and Sadler (2005) and Marsden and Ashe (2006) outline the Western Australian provision for informal SEA under s16 (e) of the EP Act and record that 41 strategic assessments were completed between 1995 – mid 2001 across a range of proposals. However, Malcolm's (2002) is the only reference to further discussion on possible benefits and disadvantages. While little is provided in terms of its value or effectiveness on outcomes of subsequent proposals, he does note that where 'the environmental acceptability of the proposal was all that was required' it has served its purpose (Malcolm, 2002, p76).

[2] It occurred 'before the concept of SEA was formalised in the EIA literature in the early 1990s' (Harvey, 2002, p133)

3.2 Influence of informal strategic advice in environmental assessment

No previous studies have specifically examined the influence of informal strategic advice in EA, so the material presented here is drawn from complementary material to this aim. Outcomes can be dependent on 'the commitment of the regulators themselves, the proponent (self-regulation) and public pressure' which 'cannot be provided for in legislation' (Arts and Morrison-Saunders, 2004, p288). Both the 'degree of influence on choices' during the decision-making process and 'the quality of information delivered' need consideration (Sadler, 2004, p263). As highlighted by Wood (2003) the flexibility offered by informal processes helps ensure EA is focussed on outcomes not just ensuring formal procedures are followed. Verheem and Tonk (2000) also raise the point that the flexibility of informal discussions reduces procedural requirements. Two important aspects of EA concern the legal nature of processes, including what might be expected or required after early strategic advice is provided and the notion of information as a tool for influencing environmental behavioural change.

3.2.1 Advice vs. legally binding processes

Gunningham (2009, p30) suggests there is evidence that information-based strategies are 'less likely to succeed if they are not underpinned by direct regulation'. However, Arts and Morrison-Saunders (2004) found that voluntary commitments and legally binding conditions were equally likely to be implemented, suggesting that a legal basis for approval is not a prerequisite for ensuring environmentally acceptable outcomes.

Also of relevance is understanding links between regulation and stakeholder behaviour, which can impact likely outcomes (Stoeglehner et al., 2010). As Arts and Morrison-Saunders (2004, p287) suggest 'activities outside the formal EIA framework… may fill gaps in government regulation.' And the threat of 'regulation or its enforcement can be

used to good effect to complement' other approaches (Gunningham, 2009, p30). As highlighted by IPC (2011), informal processes do not necessarily contain less weight than statutory advice, although statutory obligations still need to be met. Additional advisory guidelines supplement these mandatory requirements.

3.2.2 Information as a tool

According to Cashmore et al. (2004) EIA is a tool for influencing outcomes not just providing information 'by making decisions transparent and decision-makers accountable' (p298), where EIA has 'a subtler influence by affecting stakeholders' perceptions through provision of information' (p302). Whether formal or informal, information in the public arena has this same capacity. As Bartlett and Kurian's (1999) information processing model suggests EA is a means to provide information upon which decisions can be made, without which it is more difficult to make good decisions.

The model is based on information for a purpose, where any problems with EIA then lie in the information process, such as missing, defective, biased, untimely, unusable or ignorable information. There is an assumption that decision making based on the information is apolitical where decisions should be above politics (Bartlett and Kurian, 1999). In reality, as Bartlett and Kurian (1999) further explain in their politics models, information alone is not entirely influential where ulterior motives and political agendas also play a role in influencing decision making. Cashmore et al.(2004) and Pischke and Cashmore (2006) suggest that power and advantage can often hold more weight in decision making than technical data, where it is impossible to separate facts and values when outcomes are affected by compromise and trade-offs. Therefore EA becomes important as a tool for influencing outcomes through transparency and accountability, and 'changing society's expectations of democracy and development' (Cashmore et al., 2004, p306), not just information provision.

Da Silva et al. (2013, p145) believe that EA as an informative process has the capacity to change 'individual behaviour towards more sustainable practices', however it does have limitations in its powers to influence. While provision of advice is just that, it then becomes important to have an audience for 'strategically crafted arguments' and for information to have a purpose (Bartlett and Kurian, 1999, p419) and context (Sheate, 2009). Further, where advice is then published it addresses those EIA principles of transparency and credibility (IAIA and EIA, 1999), by keeping the public informed (another avenue for influencing outcomes).

3.3 Western Australian provisions for informal Environmental Assessment

In Western Australia environmental assessment is legislated under the *Environmental Protection Act 1986* (EP Act) which, in addition to legally binding processes for assessing significant proposals, also offers informal processes to assist with EA. Under the EP Act any proposal which is 'likely, if implemented, to have a significant impact on the environment' (therefore a 'significant proposal'), requires referral to the Environmental Protection Authority (EPA). The EPA is a five member independent board appointed by the Governor to conduct EIA (under Part IV of the Act) and who advise the Minister for Environment on environmental matters generally among its powers and functions (under Part II of the Act). These general advisory provisions enable informal assessment outside of the statutory EIA process (Malcolm, 2002).

There are four formal assessment types within the EP Act and section 16 (s16), as an informal tool which sits outside this formal process as an advisory function or power of the EPA in the Act (Table 3.1). The statutory/formal assessment types provided in the Act include new project proposals and planning schemes that are legally required and binding; changes to existing projects which are voluntary and binding; as well as strategic proposals which are voluntary and binding.

Table 3.1 Summary of Assessment Types in Western Australia (derived from *EP Act 1986* and EPA, 2013c).

FORMAL INSTRUMENTS (Formal assessment processes, binding)		
New project proposals	s38 (1,5) (*EP Act)*	Legally required, binding
Planning schemes	s48A (*EP Act)*	Legally required, binding
Changes to existing projects	s43A, 45C, 46 (*EP Act)*	Voluntary, binding
Strategic proposals	s38 (3) (*EP Act)*	Voluntary, binding
INFORMAL INSTRUMENTS (voluntary, non-binding advice)		
EPA advice	s16 (*EP Act)*	Voluntary, non-binding
Strategic advice	s16 (e) (*EP Act)*	Advice to Minister of Environment

Formal assessment involves submission of significant proposals to the EPA for approval where the Minister for Environment makes the final decision on whether they shall proceed and any conditions that may be applied[3] (EPA, 2012). Planning schemes and amendments are assessed under separate provisions (*EP Act,* s48A). These can also be appealed after being made publicly available (EPA, 2013c).

When the EPA determines that a new development proposal does not warrant formal assessment, it may give informal advice to either the proponent or another decision-making authority (s39A(7) of EP Act) and each year some 100-150 proposals are treated this way (EPA, 2007b, 2008; OEPA, 2010c, 2011, 2013). This research does not further consider informal advice at the project level.

The focus here is on informal s16 (e) strategic advice, which is voluntary and non-binding and takes into account plans and policies which are not subject to formal assessment as they do not directly impact on the environment (Marsden and Ashe, 2006; EPA, 2013b). This independent EPA advice, while non-binding, outlines minimum requirements whereby proponents would need to justify any deviations from this advice (EPA, 2013b).

[3] These conditions become binding (EPA, 2012).

3.3.1 Value of Section 16 (e) strategic advice

Strategic advice as outlined on the EPA website (EPA, 2013b) is considered 'advice to Government under section 16 (e) of the *Environmental Protection Act 1986*' and usually relates to 'a specific project or environmental issue'. It is considered 'informal' advice as it is non-binding under the Act and provides a function for the EPA:

> *to advise the Minister on environmental matters generally and on any matter which he may refer to it for advice, including the environmental protection aspects of any proposal or scheme, and on the evaluation of information relating thereto.*

While the key audience for strategic advice is the Minister for Environment, to assist with informed decision making (Malcolm, 2002), it is also used as guidance by other government agencies and proponents as a framework to what is environmentally acceptable[4] development.

Malcolm (2002) notes that this function has been used to provide advice to the Minister since 1995. The current total of strategic advice reports available on the EPA website now exceeds 50, where they have addressed specific projects (e.g. Kimberley/Browse LNG precinct (EPA, 2008e) as well as particular areas or regions (e.g. Dawesville to Binningup area (EPA, 2010a)) and environmental issues more generally (e.g. Managed Aquifer Recharge (EPA, 2005)). However, there appears to be little formal investigation into the impacts of informal s16 strategic advice on actual performance.

3.3.2 Influence of informal strategic advice on outcomes

Further to Malcolm's (2002) discussion on possible benefits/disadvantages of the s16 process; and the EPA's (2009, p5) review of EIA process in WA, suggesting there

[4] Environmentally acceptable proposals are those which meet EPA objectives for all environmental factors that may be affected (Waldeck et al., 2004; EPA, 2012).

should be more use of s16 (e) strategic assessment 'to help improve environmental outcomes' and 'expedite assessment for subsequent development proposals'. The only other reference available questioning its effectiveness is its identification as a 'strategic issue' entitled '*Effectiveness of section 16e advice on* subsequent *proposals'* (OEPA, 2010b, unpublished report). This arose out of the Estimates and Financial Operations hearing in November 2010 (OEPA, 2010a, p11-15) where members of parliament were interested in knowing how effective this advice was.

Members of the Estimates Committee sought to gain an understanding of the effect of strategic advice on subsequent proposals and in particular the number of negotiated settlements, outright refusals or conditional approvals as a result. Particularly in reference to s16 (e) advice recommendations for land acquisition and financial provisions for implementing this advice, such as in the Dawesville to Binningup advice (EPA, 2010a) for extending the reserve around Lake Yalgorup. The recommendation that arose from this report (OEPA, 2010b) was to 'undertake a preliminary study of a known area where there have been proposals subsequent to section 16e advice'. This study is yet to be undertaken (Wallis, pers. comm., 2013).

It is relatively difficult to measure the effectiveness of advice, such as provided by the EPA (which may or not be taken up), and whether it influences subsequent outcomes of proposals - particularly as it is an informal process with no legally binding conditions.

4. Interview results and key findings

Interviews were conducted with 29 participants, resulting in some 20 hours of conversation; the transcripts of which ran to over 160,000 words. Key responses are presented, as it is not possible to present an analysis of the entire data set here. Before presenting the findings in relation to the two research questions, the demographic characteristics of the interviewees are summarised.

Of the 29 participants interviewed the majority were EPA/OEPA staff (14), other Government agency staff (6) or industry proponents (5), with experience in the industry of 10 years or more (69%) and mainly within the planning/infrastructure area (>40%) or across all project types (~35%). As outlined by the results presented in Table 4.1, a mix of experience and involvement in the s16 (e) process can be seen across the survey group, where around half of participants have been involved with only one or two s16 (e) submissions or proposals.

Table 4.1 Demographic characteristics of interview respondents (*n*=29, 100%)

Respondents	**Number of responses**	
1. Years of experience in environmental assessment	< 5	2 (7%)
	5-9	7 (24%)
	10-15	8 (28%)
	>15	12 (41%)
2. Role in environmental assessment field	OEPA Staff	11 (38%)
	Other Government Agency[5]	6 (21%)
	Industry Proponent	5 (17%)
	EPA Board/Ex-board members	3 (10%)
	Researcher	1 (3.5%)
	Consultant	1 (3.5%)
	Environment Minister (previous)	1 (3.5%)
	Environmental Defence Lawyer	1 (3.5%)
3. Types of projects involved in	Industry	1 (3.5%)
	Planning/infrastructure	12 (41%)
	Resource Management	4 (14%)
	Planning & resource management	2 (7%)
	All project types	10 (34.5%)
4. Time spent on assessments	Up to 25%	15 (52%)
	25-50%	1 (3%)
	50-75%	6 (21%)
	75-100%	7 (24%)
5. Number of section 16 (e) projects involved with	1-2	15 (52%)
	3-4	5 (18%)
	5-10	3 (10%)
	11-20	3 (10%)
	>20	3 (10%)

There appeared to be no clear patterns in the data that would permit further analysis in this small sample size.

4.1 Practitioner perspectives on value of s16 (e) informal strategic advice

Responses to question 6 indicated that 83% of respondents believe that section 16(e) advice is of value, 10% see that it has no value and 7% have mixed views (Table 4.2). Interestingly there appeared to be a split in views where those who believe it has no value were industry proponent /environmental defence lawyer, and those with mixed views were government agency /OEPA staff.

[5] Department of Water, Department of Planning, Department of Mines and Petroleum, Local Government

Table 4.2 Perceived value of section 16 (e) advice (*n*=29)

Respondents		**Number (%)**
Q 6. Consider section 16 (e) advice to be of value	Yes	24 (83%)
	No	3 (10%)
	Mixed views	2 (7%)

Whilst two separate questions were put to interviewees on values and benefits (6 and 8, Table 3.1) the answers were ostensibly the same, so for results they have been combined. The most commonly cited participant responses on the value/benefit are outlined in Table 4.3 and listed in order of frequency of response.

The best value/benefit this advice provides includes certainty and clarity on what's acceptable (66%), upfront, early advice (45%) which states the EPA's position (41%) and it is available in the public arena (45%).

Of those few who perceive section 16 (e) advice as not providing value (10%), responses included that it's a way to condition community to a certain view by putting out the environmental position first, that it delays process, and that it takes out the important step of public scrutiny in the assessment process. Those with mixed views (7%) suggest that it is only of value when used pragmatically, where there is a receptive audience and/or in the right context with clear objectives.

Table 4.3 Most frequently cited responses on the value/benefits of section 16 (e) advice

Respondents		Frequency
Yes – it has value (83%)	• Certainty and clarity of what's acceptable (direction, guidance, ground rules)	19 (66%)
	• Upfront, early advice	13 (45%)
	• Published information available to everyone	13 (45%)
	• EPA position on issues it considers important (clarifies position and expectations)	12 (41%)
	• Broadens scope – strategic	11 (37%)
	• Seeks best available information (base in science, from many sources, collaboration)	10 (35%)
	• Background information, benchmarking	9 (31%)
	• Flags issues (identifies early)	7 (24%)
	• Flexible (not bound by statutory restrictions/limitations, room for negotiation)	7 (24%)
	• Independent view	6 (21%)
	• Avoid need for formal assessment (when based on recommendations)	5 (17%)
	• Address cumulative impacts	4 (14%)
	• Answers specific questions, e.g. new technology	4 (14%)
	• Raises awareness on important issues	3 (10%)
	• Continuity and consistency	3 (10%)
No – it has no value	• Condition community to a certain view - to get greater sway in an argument; disadvantages those who made 'false' acquisition or development decisions; delays process; no public scrutiny	3 (10%)
Mixed views	• Has value when: clear objectives set and achieved, advice is usable, audience interested, realistic recommendations, able to implement	2 (7%)

All participants provided at least one example of a benefit of s16 advice. While not all participants believe section 16 (e) is of value, it is interesting that they all perceived it provided some kind of benefit. These qualitative results on the top three most commonly cited values/ benefits of s16 (e) advice are further explored using practitioner comments.

4.1.1 Certainty and clarity on what is acceptable

Certainty and clarity relate to the effectiveness of EA in making the right decision in protecting the environment, where section 16 provides advice on how the EPA might

assess something that happens in that area. As respondents suggest, it primarily allows for '*comprehensive knowledge and certainty'*.

> *It gives clarity to people, certainty and it explains things too. Section 16 advice is really good with providing information and what's required to have some certainty or at least some public guidance about what's important and what people should look out for and perhaps the studies they need to do if they're going to successfully get a project up and running. If it's done well it benefits everybody, and putting information out early saves everybody time.*

> *I can actually draw some lines on a map with some surety that those areas aren't encroaching on high environmental values and say does this have development potential when in fact it might not.*

Other points raised include '*managing expectation by knowing the rules', 'clarity of process and likely outcomes', 'validating facts', 'providing context within which projects can be judged'* and '*rules for acceptability'*. This supports better informed choices that can contribute to the effectiveness of EA relating to delivering its desired outcome of protection of the environment (Bartlett and Kurian, 1999; Wood, 2003). Proponents, consultants and other government agencies alike find value and benefits in using this advice as guidance in informing EA decisions, not just the designated audience of advice to the Minister for Environment (where s16 (e) is considered advice to Government (EPA, 2013b)).

4.1.2 Upfront, early advice

Nearly half (45%) of participants feel upfront early advice provides greater certainty on how the EPA will make their decision and expectations on acceptability of a proposal which can then be incorporated into project planning. For example:

It gave indications and confirmed areas that were important and allowed consideration of options.

It is an opportunity for the EPA to provide informal comment at a very early stage…and provide the direction rather than waiting till things come forward at the last minute.

It is just really about getting that early upfront advice out to the community and industry about environmental issues in an area so that people can consider then really early in their project planning. So that they know up front…this is a no-go area or it identifies what kind of work they'd need to work out.

This links to SEA thinking of earlier more strategic planning (Partidario and Therivel, 1996; Therivel, 2004; Dalal-Clayton and Sadler, 2005; Sheate, 2009), where it allows for early decision processes where strategic decisions can precede and help guide action (Cherp et al., 2007) – providing greater certainty and clarity in proposals. Section 16 (e) advice demonstrates value in terms of providing direction, encouraging earlier consideration of environmental issues, knowing up front what is acceptable and any additional work that may be required.

4.1.3 Published information available to everyone

Nearly half (45%) respondents see value in published information being available for use by anyone and as a tool for informing. This aligns with Bartlett and Kurian's (1999) information processing model of making more informed decisions through the generation and communication of information; and EIA principles of transparency, credibility and accountability through engaging or informing the public (IAIA and EIA, 1999). Some respondents identified its value as '*a way of getting your message heard', 'a mechanism for putting views on paper which will lead to process and discussion', 'a*

published defendable position' and as a communication mechanism where '*government has a responsibility to communicate to community.'*

> *It provides knowledge that can be used by anyone. It doesn't belong to a proponent, it belongs to government and community to use because it's public process as well.*
>
> *It helps guide people and puts awareness out there about issues, a broader base of information that the public could refer to, to inform.*
>
> *You need to draw the public's attention to it. That's the benefit of this public advice that you can put things out in the public domain, it's the EPA view and can influence decision making if proposals come up.*

A number of respondents discussed s16's value in terms of power and influence (e.g. '*as published advice it's public so that's a powerful thing'*), not just as a means to inform when it is published information. So EA works in many ways, sometimes it is simply raising the ideas to generate discussion, other times its similar to Cashmore et al.'s (2004) view of EA as a tool for influencing outcomes not just providing information.

4.1.4 No value or mixed views

Generally those involved in development saw less or no value in s16 (e) advice as it diminished profit margins and land value in their business which could be financially problematic for some investors, as well as adding time and delays to the process.

> *There would be individual landholders that would be directly impacted by this, whose land now does not have the value they would have paid for it. Which gets backs to timing - if all of this had been done in 1950, no one would be making false acquisition decisions or development decisions, because all of this would be known.*

Those with mixed views were government agency/OEPA staff. While some respondents perceive s16 advice as an informative tool for referral by the public, others see value only where the s16 advice can influence government.

> *To have a good value from section 16 advice you have to have a receptive government for it. If the Minister is not receptive to receiving that advice, then it's almost wasting your time. To be effective you've got to … address topics that are of interest and of relevance.*

> *So when some have been effective there's been a very clear sense of what the objective is that's being sought.*

As Sippe (1999, p74) explains, EA needs to provide 'sufficient usefulness to survive and grow'. This includes raising issues that are relevant and timely, focussing on 'those decision makers and times that really matter' (Therivel, 2004, p xvi), where an audience is important and generating information should be for a purpose (Bartlett and Kurian, 1999). So it is about addressing those EA principles of being purposive and relevant (IAIA and EIA, 1999), and focussing on 'delivering information necessary to the decisions to be made' (Dalal-Clayton and Sadler, 2005, p15).

4.2 Influence or effect of s16 (e) informal strategic advice on outcomes

All participants provided at least one example of how section 16 was used in practice in response to interview Question 7 (Table 2.1), indicating varying levels of success depending on the location, issue, scale of area, values of the government of the time or ease of implementation and objectives. The most frequent participant responses of examples where/how section 16(e) advice has been used in practice include the Dawesville to Binningup advice (EPA, 2010a) and the Preston Industrial Estate advice

(EPA, 2008a) which the largest number of participants had been involved with (45% for each of these, Table 4.4).

It was also noted by respondents that the uptake of s16 advice was sometimes lacking at the project level (e.g. Conservation of Roadside Vegetation or Mt Manning Nature Reserve – that may have drawn attention to the issue but lacked the uptake for various reasons). The focus here is on those examples where it was used in subsequent proposals.

Table 4.4 Most frequently cited s16 (e) advice where outcomes were discussed by respondents

Section 16 (e) advice		**Frequency**
Dawesville to Binningup	Strategic Environmental Advice on the Dawesville to Binningup Area: Report and recommendations of the Environmental Protection Authority (EPA, 2010a).	13 (45%)
Preston Industrial Park	Advice on Areas of Conservation Significance in the Preston Industrial Park (EPA, 2008a)	13 (45%)
Future advice	Perth-Peel Strategic assessment – collaboration with the State and Commonwealth that will strategically inform development across the Swan Coastal Plain (for 3.5 million people). Future advice aimed at Directions 2031 plan (DoP and WAPC, 2010).	9 (31%)
Keralup	Keralup formerly Amarillo Masterplan, Karnup (EPA, 2008d)	6 (21%)
Mt Manning Nature Reserve	Advice on areas of the highest conservation value in the proposed extensions to Mount Manning Nature Reserve (EPA, 2007a)	5 (17%)
Waste to Energy	Environmental and Health Performance of Waste to Energy technologies (EPA, 2013a).	5 (14%)
Conservation of Roadside Vegetation	Conservation of Roadside Vegetation (EPA, 2008b).	4 (14%)
Managed Aquifer Recharge	Strategic Advice on Managed Aquifer Recharge using Treated Wastewater on the Swan Coastal Plain (EPA, 2005)	4 (10%)
Point Grey (Shire of Murray planning scheme)	Shire of Murray Planning Scheme No 4 Amendment No 104 (Point Grey) - Review of Ministerial Statement 519 (EPA, 2011).	4 (14%)
Barrow Island	Environmental Advice on the Principle of Locating a Gas Processing Complex on Barrow Island Nature Reserve (EPA, 2003b)	3 (10%)
Kimberley / Browse LNG	Kimberley LNG Precinct: Review of potential sites for a proposed multi-user liquefied natural gas processing precinct in the Kimberley region (EPA, 2008e).	3 (10%)

4.3 Case studies demonstrating value and influence of s16 (e) advice

The two case studies presented here provide insight into how informal advice can influence subsequent activities, including some of the benefits and obstacles with the type of advice, the scale of its application and any other existing or subsequent advice or guidance which may arise over time.

4.3.1 Case study 1: Preston Industrial Park

Preston Industrial Park (EPA, 2008a) is an example of where the section 16 advice has subsequently been used with environmentally acceptable outcomes. Respondents were a mix of proponents (23%), OEPA/EPA (53%) and Department of Planning (23%). In this case, there was a clear split in views between policy makers and other regulators who felt that it was a good outcome, whereas proponents with vested interest in land development (based on earlier government land-use planning decisions) felt that it was financially problematic for some investors who could no longer develop due to conservation values.

> *This started back in 1995. The issue with the Preston Industrial Park it was an identified area 4km east of Bunbury for light and general industry. At the time they did some very broad scale look at environmental issues that didn't throw up anything in particular of concern…they [WA Planning Commission (WAPC)] did a report called 'Bunbury Wellington Region Plan'* (WAPC, 1995).

Further studies were commissioned by the State Government and released in *Industry 2030 – Greater Bunbury Industrial Land and Port Access Planning* (WAPC, 1998) whereby the EPA provided advice to the WAPC that would be used in subsequent planning assessments (EPA, 2003a). It was applied in the *Greater Bunbury Region Scheme report* (released by the WAPC in 2003). Several years later the Minister of

Environment formally requested strategic advice from the EPA on environmental issues in subsequent planning stages on the WAPCs review of the earlier *Industry 2030* (WAPC, 2000) which was released as Preston Industrial Park s16 (e) advice (EPA, 2008a).

> *This area was identified for development based on the Industry 2030 plan, people made decisions based on the document. This* [Preston Industrial Park advice] *came out eight years later and said no you can't develop any of that. In eight years people made decisions made on government's position and then another government came out and said no you can't develop.*

So in this case, for it to meet the value of upfront early advice, '*the benefit would be realised more if the strategic review was done earlier, rather than your project being the trigger for the advice'*. This seemed to be the case here, where the s16e advice was then '*acknowledged and recognised in planning and then taken on board and reflected in information'*.

> *The EPA did work closely with Department of Planning, so they actually developed a structure plan and it's a larger area, decided to do it in two parts. So they pursued a structure plan for this northern portion which is entirely consistent with the EPAs advice. .. they've got little precinct areas in their structure plan which says that people have to address this EPA advice.*
>
> *We are seeing those subdivisions coming through with some consistent with the advice…so we're getting better proposals when they come through.*

Since the 2008 s16e advice was released it has been referred to in subsequent proposals, even though it was contested due to the earlier decisions that had been made.

Now that was contested though by Landcorp and the South West Development Commission...so the Department of Planning, the WAPC supports it but the Development Commission doesn't. So it's really an on-going process where the agencies who benefit from land development see barriers put in place by the Department of Planning, the EPA when they seek to protect environmental assets.

Based on this advice we've been able to get them to design things in accordance with this advice. There's always a little bit of wriggle room… but largely we've been able to retain these areas through the development. It's been really good because some of these areas were already zoned industrial. So to be able to get people to retain this is a really good outcome.

In this case the advice led to prioritising area and retaining those of highest values based on surveys, which was '*taken on board'* and provided more certainty and clarity on what was acceptable.

It provides some certainty on the EPAs concerns, and obviously the agencies they've sought the advice from like the Department of Water, Department of Environment in coming up with the s16 (e)…It certainly influenced the planning because the s16 (e) actually identified the significant areas of bush and the wetland areas, yeah, so we've retained those. So s16 has certainly influenced the design of the estate.

Because the advice is publicly available, when considered in future proposals it does have the capacity to be more strategic and potentially 'avoid or streamline' subsequent assessment (Stoeglehner et al., 2010, p410).

Providing advice to say look try and avoid these areas and design your industrial precinct around those values to the extent that you can. So you know if you do that and you avoid those things, you're going to get through the system very easily… it's

one of those things, which if you comply with the sort of policies and standards the EPA might go well it's not assessed, its managed through the planning system. And that's the whole point of this is that you provide that advice, a proposal comes in consistent with that advice then you've got a very streamlined decision making process.

The Preston Industrial Estate advice illustrates the potential informal strategic advice has to eliminate downstream EIA, where the requirements and expectations in this case led to a structure plan consistent with the s16 advice and '*better proposals coming through'*. It also illustrates the relevance to context (Sheate, 2009) and how this can change with time. From its earlier zoning as industrial in 2003 (WAPC, 2003) to the release of the s16e advice in 2008, there were changes in the areas that could be developed in relation to conservation values. Despite this change in context, the s16 advice has been taken on board, which shows the influence the EPA's advice can have on outcomes despite differences in value placed on the advice (e.g. between proponents and regulators). This relates back to Bartlett and Kurian (1999) and Cashmore et al.'s (2004) idea of EA as a tool for influencing outcomes not just providing information.

4.3.2 Case study 2: Waste to Energy technologies

The Waste to Energy advice came at the request of the Minister regarding development of new technology and the potential environmental and health performance of waste to energy technologies (EPA, 2013a). It was requested in November 2011 and released in April 2013 (EPA, 2013a), where the Port Hedland Boodarie Recovery facility assessment also came out in April 2013 (EPA, 2013e). This was seen as a good example by all those interviewed (a mix of OEPA/EPA and proponents), of where s16 (e) advice was influential, particularly in relation to its timing and relevance. For example:

So Government's clearly interested in developing a waste to energy industry in Western Australia, and there're a lot of proponents out there with four proposals before EPA. So clearly there's a receptive audience because proponents are pushing that. In that case the Minister actually asked for the advice. It has to be pragmatic. It has to take account of the current situation, you know. So I think the Waste to Energy advice was a good example of how we did that.

I think it had immediate effect. The Port Hedland proposal came out and that absolutely conforms with the advice, and other proponents who are looking at waste to energy proposals have welcomed it.

This clearly aligns with the idea of a receptive audience and information for a purpose (Bartlett and Kurian, 1999) and raises the issue within the right 'decision window' at a time when it really matters (Therivel, 2004; Jiliberto, 2004a) - from when advice was requested, to release of advice.

So there was s16 (e) and then there was the Port Hedland Boodarie, so that was consistent. It makes good sense that you release your policy advice and you follow it up with an assessment to a project which is consistent with EPA advice. You want to get your advice there in a timeframe that's going to be relevant to the Minister. So, if this advice had come out after the proposal, you just would've gone well guys you've missed the boat because this one doesn't have the world's best practice in it.

In this case it also identified with all the key benefits and values highlighted by interviewees including upfront early advice (e.g. coming in at the start of a new industry), certainty and clarity on what is acceptable (e.g. industry best practice), broader scope/strategic (in that it applies to statewide proposals not just project specific), and that it is published information bringing an independent view in

demystifying perceptions on incinerators which '*in the past had a poor reputation'*. This taps into Bartlett and Kurian's (1999) information processing model in providing timely, usable information based on the latest technologies and international practice.

> *Look it was driven largely by the EPA but as a proponent we supported that pathway. We believe we have a very clean and environmentally friendly project but it's an education process with the general public because it's new…as the proponent there'll always be a level of mistrust, particularly with the community because we've got the most to gain from getting it up. So the s16 advice was a good middle ground or an independent of, not our project, but simply waste to energy as an industry, and particularly impacts on the community. That data is available, so why not get that into the space to inform all stakeholders.*

The provision of greater certainty and validating information through an independent view provided to the public seems to be particularly important, as highlighted by this proponent comment:

> *In a lot of respects it checked our facts … that's what the EPA process is all about, you know, validating what we say so provided more certainty, because we actually didn't receive any appeals at the end of the process which from the advice I've been given is pretty unusual.*

Even though the advice worked well in this case, an interesting comment raised by one proponent was in regards to their view on the influence of s16 advice, its political nature in decision making (Bartlett and Kurian, 1999) and the influence this advice has coming from the EPA as an independent body.

> *I think there's a danger it could be used as a political tool. It wasn't in this case. I mean, the Board and the EPA's totally independent from who's in government at*

the time, but in the wrong hands it could be quite a powerful barrier to projects getting approved. In that regard we got a very fair hearing, because there's a lot of political noise about waste to energy, it's a very hot topic here…So the direction that the s16 heads in is almost solely dependent on the officers and the board of the EPA.

While the EPA only advises the Minister, there is implicit power in the independence of the EPA, the public reporting and the back-up of the EP Act (where Ministerial conditions become legally binding) gives enormous power to whatever the EPA say (based on views of respondents here). Reiterating the point raised by Cashmore et al. (2004) is this use of EA as a tool for influencing outcomes not just providing information.

As illustrated here s16 (e) advice works best when it feeds into future proposals and '*the timing between having an issue and asking for advice'.* The values of upfront early advice provides certainty and clarity on what is acceptable in a new statewide industry, where being publicly available helps to both inform and guide EA. It also aligns with the idea of a receptive audience and information for a purpose, providing timely, usable information (Bartlett and Kurian, 1999; Therivel, 2004).

4.4 Improving the effectiveness of s16 (e) advice

Almost all participants provided a response on possible ineffectiveness and/or ways to improve section 16 (e) advice (question 8, Table 3.1), with only one stating that '*I don't think I could really say';* and another stating that '*I just found it all helpful'.* While most had a positive view on the section 16 process (>80%), there were a number of suggestions on improving the process, as outlined in Table 4.5. The most frequent

participant responses include the cost, time and resources required, its currency/shelf-life, its uptake which is not enforceable, and the need for clear objectives.

Table 4.5 Most frequently cited examples on the ineffectiveness and possible improvements of s16 (e) advice

Ineffectiveness of advice	**Frequency**
Cost, time and resources (who's going to pay for it)	9 (31%)
Shelf-life/currency (need to remain current to be useful, has a use-by date - after a period of time it is less valuable advice)	8 (27%)
Listening and uptake – receptive audience (not always taken up, ignored)	6 (21%)
Not enforceable – needs a higher level of surety	6 (21%)
Implementation - needs a vehicle for implementing recommendations, how is the advice transferred	4 (14%)
Unsure of effectiveness /value (struggle to measure the value of this advice)	4 (14%)
Adhoc (tends to be driven by whatever the pressures are)	4 (14%)
Generalised information	3 (10%)
Improvements	**Frequency**
Clear objective – clear purpose that everyone's aware of, a common objective	7 (24%)
Timing and the time it takes (improve timing of release, relevance)	6 (21%)
Public consultation seen as important (has no mechanism for public comment)	5 (17%)
Review to remain current	4 (14%)
Underused, need more of it (guide on issues/areas)	4 (14%)
Collaboration/cooperation (streamlining/aligning with government agencies and allocating resources in to allow it to be effective)	4 (14%)
Finding the issues early and addressing them (rather than the project being the trigger for the advice)	3 (10%)

The issue of uptake of advice was raised by OEPA/EPA respondents only; otherwise there were no clear patterns in the data relating to demographics.

4.4.1 Ineffectiveness - cost, time and resources, shelf-life/currency, listening and uptake

One of the key issues raised in terms of ineffectiveness was the question of cost, time and resources to provide this informal advice – i.e. who's going to pay for it? Especially considering that it comes before projects and at the project level proponents have the responsibility provide this detailed level of information (EPA, 2012).

It does take up a lot of time and resources which can delay the timing on release of advice when extensive studies need to be undertaken.

It would be good to have more of that to provide clarification on other issues or related areas, but it does take up a lot of time and resources.

They also need to remain current to be useful, so shelf-life and currency needs to be considered, particularly where the '*advice is slightly dated',* as it can be superseded by other information or advice. So this comes back to the EA principles of being fit for purpose and remaining relevant (IAIA and EIA, 1999; Dalal-Clayton and Sadler, 2005).

I think you'd have to be careful if you continue to use section s16e advice which is slightly dated because I don't think it's a sound basis then for doing assessments or providing proponents with guidance if it's not up to date. So I think I'd be a little bit wary of that.

Currency relates to whether the advice '*gets revisited'*, which it '*currently doesn't'*, and if it should be reviewed. A few respondents suggested that it possibly should not - as it is often '*just the start point in raising or flagging an issue to bring some attention to the area, issue, environmental value etc'.*

While the process is good, the listening and uptake is not always there.

Sometimes I think it's a disappointing take-up of some of the recommendations. But not disappointed with the process. It's always going to depend on the people who are involved in that area of listening and taking it up. The government of the day may not like that advice and intend to accept it, but they can get that advice in a formal way too and not accept it too.

This all comes back to addressing EA principles of relevant, purposive and necessary for the decision at hand (IAIA and EIA, 1999; Dalal-Clayton and Sadler, 2005), and focussing on 'those decision makers and times that really matter' (Therivel, 2004, p xvi). So it becomes a balancing act of providing information and influencing decision makers, where an audience for information becomes important (Bartlett and Kurian, 1999).

4.4.2 Potential Improvements – provision of clear objectives and timing of advice

A number of improvements were identified as positive ways forward, including provision of clear objectives and the importance of timing of advice – where it was identified that they work best when they feed into future proposals and '*the timing between having an issue and asking for advice'*. Review to retain its currency depends on the type of advice and area it is in or if issues it address are still current, where '*none of these things stay in place'*.

Provision of clear objectives aligns with Cashmore et al.'s (2004, p296) thinking that constraints of effectiveness relate to 'issues of purpose, rather than inadequate legislative provisions'; and Wathern's (1988, p6) view of 'reducing adverse impacts before proposals come through' to eliminate downstream EIA.

> *You've got to have a very clear understanding of what its purpose is and what you're trying to achieve. Otherwise it's just probably wasting your time.*
>
> *Tell the people what the environmental objectives that you're aiming for as early as you possibly can and then work out if and how they're going to achieve them. Because if they can't they might just go away, it might save you a lot of work.*
>
> *So is the objective to influence proponents…to change government policy settings…to give more certainty to proponents about the assessment process and*

the outcomes…to influence site selection. It's working out what is the objective of that s16 advice and the EPA running a process that is continually referencing that objective.

Timing of advice is important and the time it takes. As illustrated in the Waste to Energy case study, s16 advice works best when it feeds into future proposals. Where the advice was provided a long time ago, the issue may have changed or the advice progressed into other subsequent processes, e.g. Mount Manning advice (EPA, 2007a) '*created focus on the area'*.

While *recommendations were never implemented because of the values in the area for resources more than for conservation,* this advice *fed into the decision making process of the broader issue … that banded ironstone extends further into that Midwest region too. So the subsequent process that happened between the Department of Environment and Conservation and Department of Mines and Petroleum, it went beyond the Mt Manning area, it had a wider regional scope. The final review was covered by the Banded Ironstone Formation review [(Govt. of WA, 2008)]. It references the s16 advice [Mt Manning] on page 6. So it's giving some context.*

Timeliness and relevance (Therivel's, 2004) relate to advice for a purpose (Bartlett and Kurian, 1999) and it usefulness for decision making (Sippe, 1999). Additionally, no matter how comprehensive resultant scientific data may be, it can rapidly become redundant (Cashmore et al., 2004).

Timeliness is a key thing, so and relevance, I guess they are related. You want to get your advice there in a timeframe that's going to be relevant to the Minister. The Minister might have asked for it [and] *because this has taken so long to get to there*

the issues already been, they've already had to make a decision… these days we'd be working to make sure that the advice was provided in timely manner even if it was at a higher level so that it does provide that context.

So it comes back to Therivel (2004) and Jiliberto's (2004a) idea around timing and raising the issue within the right decision window, which can help to improve listening, uptake and implementation of recommendations.

5. Conclusions

The aim of this study was to gain a better understanding of the value of informal strategic advice in EA in Western Australia and how this advice influences or affects outcomes of subsequent proposals. The study design revolved around reviewing international and local literature in combination with interviews with a select number of EA stakeholders that were chosen for having a particular frequency of involvement with s16 (e) advice of the EPA, and selecting two s16 reports as case studies.

With respect to the value of informal strategic advice, this research has shown practitioners have a strong belief in the value of s16 (e) advice in environmental assessment in WA. While not without criticism it is currently seen as beneficial for providing upfront early advice and greater certainty on what is environmentally acceptable where a published position of the EPA's view is available to everyone. The perspective of WA practitioners connects well with international literature. For example, this upfront early advice links with SEA thinking where earlier decision processes and strategic decisions can precede and guide action (Cherp et al., 2007), providing greater certainty and clarity in proposals.

In regards to how informal strategic advice influences outcomes, this research highlights some of the benefits and obstacles with the variation within the type of advice at hand, and how it may affect subsequent proposals. While its uptake can be variable and there are limitations in its use (time and resources required, currency and shelf-life and uptake), the benefits and value of providing upfront early advice can be seen in the subsequent use of this advice. As the case studies illustrate, s16 (e) advice works best when it feeds into future proposals, in the early stages of the decision process with a receptive audience (e.g. Waste to Energy case study). Advice can also

lead to better proposals coming through, such as in the Preston Industrial Estate advice where subsequent planning aligned with the conservation values of the area.

It seems apparent that the use of 16 (e) strategic advice is of most value where it has clear objectives, remains audience focussed, is timely and relevant; so there is an opportunity to improve its use and uptake through more focussed, timely and purposive application of s16 advice. Although s16 (e) is a purely informal process the formal provisions of the EP Act are running parallel in the background which may add more weight to its uptake when it is seen to reduce or streamline formal subsequent EIA.

These findings challenge the normative view expressed in international literature that places emphasis on legally binding EIA. It recognises that EIA is a process of learning and negotiation, not just strict compliance and following of procedures. Information and ideas are important to informing decisions - because by definition the future is uncertain and EIA is triggered in light of uncertainty and where environmental risk is involved. Informal advice can help reduce uncertainty and increase knowledge. Proving cause and effect in an informal situation is challenging, and it can often be easier to give attention to legal matters because they are binding and obvious, whereas informal processes are less definitive. However, the evidence gathered in this study suggests that the informal strategic advice used by the EPA in Western Australia does add value and has influence on environmental assessment outcomes.

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Additional Information

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Appendix A - Interview questionnaire, information letter and consent form

Investigating the Value of Informal Processes for Environmental Assessment in Western Australia

Interview Questions

(Directed to practitioners involved in s16 (e) activities, processes, reports)

This survey aims to gather feedback from practitioners working in the environmental assessment field in Western Australia, specifically on the value of informal advice (voluntary, non-binding) provided by the Environmental Protection Authority under section 16 (e) of the *Environmental Protection Act 1986*. This study is part of my Master's Degree in Environmental Science, supervised by Dr. Angus Morrison-Saunders at Murdoch University.

Your responses will be treated confidentially. Any identifying information will not be connected to reported data.

1. How many years have you been working in the environmental assessment field in Western Australia:
   < 5 years 5-10 years 10-15 years >15 years

2. What best describes your role:
   Consultant Industry Proponent OEPA staff Other Government Agency
   Other (specify) _____

3. Which types of projects are you mostly associated with:
   Industry Planning Infrastructure Resource Management

4. Approximately how much of your working time do you spend directly on environmental assessment:
   Up to 25% 25-50% 50-75% 75-100%

5. How many section 16 (e) submissions / proposals have you been involved with?_____

6. Do you consider the s16 (e) process to be valuable? If so what do you see as the best value that s16 (e) advice offers?

7. Can you provide an example of how s16 (e) advice influenced subsequent activities by others? (i.e. how it has been used in practice)

8. What do you see as the main benefits of the EPA's s16 (e) advice?

9. Are there specific components of the s16 (e) process that have been ineffective or that could be improved? If so, how?

10. Do you have any other comments to make regarding informal processes for environmental assessment in Western Australia?

11. Is there anyone else that you know who is working in this field that may be interested in sharing their experiences with s16 (e) advice? *(who I can contact to interview)*

Information Letter
"Investigating the value of informal processes for environmental assessment in Western Australia"

Dear

We invite you to participate in a survey aimed at gathering feedback from practitioners working in the environmental assessment field in Western Australia, specifically on the value of informal advice (voluntary, non-binding) provided by the Environmental Protection Authority (EPA) under section 16 of the *Environmental Protection Act* 1986. This study is part of my Master's Degree in Environmental Science, supervised by Dr. Angus Morrison-Saunders at Murdoch University.

Nature and Purpose of the Study

One of the tools used by the EPA in Western Australia is to provide informal advice to proponents or decision-making authorities (section 16). The purpose of this research is to find out how professionals working in the field view this advice. Specifically:

Research Qu.1: What is the value of informal EPA advice in environmental assessment in Western Australia?

Research Qu.2: How does this informal advice influence or affect the outcomes of subsequent development proposals?

If you consent to take part in this research study, it is important that you understand the purpose of the study and the tasks you will be asked to complete. Please make sure that you ask any questions you may have, and that all your questions have been answered to your satisfaction before you agree to participate.

What the Study will Involve

If you decide to participate in this study, you will be asked to undertake an interview based on a standard questionnaire. It is estimated that the interview will take approximately **15 minutes to answer questions** based on your experience working with environmental approvals processes in Western Australia. Interviews will be conducted at your office (or nearby meeting room) at a time that is convenient to you.

The questionnaire results will be used to support the research and the material once collected will be stored in safe place at Murdoch University. Organisation identity will be handled with the highest standards of research integrity, where organisations will only be identified in broad terms if the data set makes this a useful distinction to provide. For example, use of generic terms such as 'local government authority' (LGA) where LGA interviewees' perspectives are substantively different from 'state government', 'consultants' or 'industry proponents'.

Voluntary Participation and Withdrawal from the Study

Your participation in this study is entirely voluntary. You may withdraw at any time without discrimination or prejudice. All information is treated as confidential and no names or other details that might identify you will be used in any publication arising from the research. If you withdraw, all information you have provided will be destroyed.

Benefits of the Study

It is possible that there may be no direct benefit to you from participation in this study.

While there is no guarantee that you will personally benefit, the knowledge gained from your participation may help others in the future - by determining the extent to which the informal environmental assessment process is utilised in Western Australia, whether non-binding advice under section 16 (e) of the Environmental Protection Act 1986 is of value, and how it may influence the environmental performance of subsequent proposals.

Possible Risks
There are no specific risks anticipated with participation in this study.

If you have any questions about this project please feel free to contact either myself, Lara Martin on mbl. xxxx xxx xxx, or my supervisor Dr Angus Morrison-Saunders on ph. 9360 6125. My supervisor and I are happy to discuss with you any concerns you may have about this study.

Once we have analysed the information from this study we will e-mail or mail you a summary of our findings. You can expect to receive this feedback in November 2013.

If you are willing to consent to participation in this study, please complete the Consent Form**.**

Thank you for your assistance with this research project.

Sincerely

Lara Martin

This study has been approved by the Murdoch University Human Research Ethics Committee (Approval 2013/040). If you have any reservation or complaint about the ethical conduct of this research, and wish to talk with an independent person, you may contact Murdoch University's Research Ethics Office (Tel. 08 9360 6677 or e-mail ethics@murdoch.edu.au). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Consent Form
Interview

Investigating the Value of Informal Processes for Environmental Assessment in Western Australia

I have read the participant information sheet, which explains the nature of the research and the possible risks. The information has been explained to me and all my questions have been satisfactorily answered. I have been given a copy of the information sheet to keep.

I am happy to be interviewed and for the interview to be audio recorded as part of this research. I understand that I do not have to answer particular questions if I do not want to and that I can withdraw at any time without needing to give a reason and without consequences to myself.

I agree that research data from the results of the study may be published provided my name or any identifying data is not used. I have also been informed that I may not receive any direct benefits from participating in this study.

I understand that all information provided by me is treated as confidential and will not be released by the researcher to a third party unless required to do so by law.

Participant's name: _____

Signature of Participant: _____ Date: ……./……./…….

I confirm that I have provided the Information Letter concerning this study to the above participant; I have explained the study and have answered all questions asked of me.

Signature of researcher: _____ Date: ……./……./…….